



SEQUENCE LISTING

<110> NIEHRS, CHRISTOF
GLINKA, ANDREI

<120> AN INHIBITOR PROTEIN OF THE WNT SIGNAL PATH

<130> 40168

<140> 09/530,219

<141> 2000-07-27

<150> PCT/DE98/03155

<151> 1998-10-27

<150> DE 197 47 418.7

<151> 1997-10-27

<160> 9

<170> PatentIn Ver. 2.1

<210> 1

<211> 1297

<212> DNA

<213> Xenopus laevis

<400> 1

```
gacagtcgga gccggcgctg cagcatcaaa gggacttata ttggaggact tgtgaattct 60
catcctgcc aattgtgttac tgagtctggt tggacagagg aatgggcagc aacatgttcc 120
cgggtgectct tattgtcttt tgggggtttta tcttggatgg ggcacttggc tttgtcatga 180
tgaccaactc caactccatc aagaatgtgc cggcggcacc agcaggtcag cccattggct 240
actaccctgt gaggctcagt cgggactccc tatatgatat tgccaacaag taccaacctc 300
tggatgccta cccgctctac agttgcacgg aagatgatga ctgtgccctt gatgaattct 360
gtcacagttc cagaaacggc aactctctgg tttgcttggc atgccgaaa cgcagaaagc 420
gttgccctgag ggacgccatg tgctgcacag gcaactactg tagcaacgga atttgtgtcc 480
ctgtggagca agatcaagag cgcttccaac accagggata cctggaagaa accattctgg 540
aaaactataa taatgctgat catgcaacaa tggatactca ttccaaatta accacgtccc 600
catctggaat gcagcccttt aaaggccgtg atggtgatgt ttgcctccga tcaactgact 660
gtgcgccagg tctatgctgt gcccgctcatt tctgggtcaa gatctgcaag ccggtccttg 720
atgaaggcca agtgtgcacc aagcacagga ggaaaggctc tcacgggcta gagattttcc 780
agcgttgtca ctgcgggtgcc ggactctcgt gccggttaca gaaaggagaa tttacaactg 840
tccctaaaac atcgagactt cacacttgcc aaagacacta agcgaggcct acagagcctg 900
aaggaccttc tctaaattaa gctaattaag actttggtac ctgcatgtta ttttctcagt 960
ttacatgaag tgctctggtc ttccctgaac ccggaagctg cgcaacttgt ttcttttttt 1020
gaggaacttc ctaattaatg ctaattacag taaattactg tgttgtaaat actacgcaag 1080
gagacctgta aaaactgtaa ataccctgtg atagaaagtg tacatgatct tctctattgt 1140
aacctgccac cttgtacatt ccgacgcgtc cttccctttt tatatatata tatatataaa 1200
tatatattat attatgtaga gtttacgtct agtatgtctg tatttttaaa tgaaataaaa 1260
catttctaaa cttaaaaaa aaaaaaaaaa aaaaaaa 1297
```

<210> 2

<211> 881

<212> DNA

<213> Mus sp.

TECH CENTER 1600/2900

SEP 14 2001

RECEIVED

<400> 2

```

tgcaggcatg aacaaggact ggggttcggcg gcagtgagaa gggcaaaagc ctggggcagg 60
cctacccttg cagcagtgat aaggaatgtg aagttggaag atactgccac agtccccacc 120
aagggttcac agcctgcatg ctctgtagga ggaaaaagaa acgatgccac agagatggga 180
tgtgttgccc tggtaaccgc tgcaataatg gaatctgcat ccagtcact gagagcatcc 240
tcaccccaaca tatcccagct ctggatggca cccggcatag agatcgcaac catggctact 300
attccaacca tgacctggga tggcagaatc taggaaggcc aactccaag atgcctcata 360
taaaaggaca tgaaggagac ccatgcctac ggtcatcaga ctgcattgat gggttttgtt 420
gtgctcgcca cttctggacc aaaatctgca aaccagtgtc ccatcagggg gaagtctgta 480
ccaaacaacg caagaagggt tcgcacgggc tggagatttt ccagaggtgt gactgtgcaa 540
agggcctgtc ctgcaaagtg tggaaagatg ccacctactc ttccaaagcc agactccatg 600
tatgccagaa gatctgataa aacttggaag agtcatcact agcagactgt gaatttgtgt 660
atttaattgca ttatggcatg atggaaacct ggattggaat gcggaagaat gagggatgtg 720
gtaagaatgt ggagcagaag agggcaggac tgaatcaagt agagtcgaca acaaccaaag 780
tactaccagt gcttccgtta tgtgcctcat ctatgtaaat aatgtacaca tttgtgaaaa 840
tgctattatt aaaagaaagc acaccatgga aattacaaa a 881

```

<210> 3

<211> 1226

<212> DNA

<213> Mus sp.

<400> 3

```

gaccacgcg tccgtgcctg tttgcgtcct tcggagatga tggttgtgtg tgcaccggca 60
gctgtccggt tcttgccgt gtttacaatg atggctctct gcagcctccc tctgctagga 120
gccagtgcc ccttgaactc agttctcatc aattccaacg cgatcaagaa cctgccccca 180
ccgctgggtg gtgctggggg gcagccgggc tctgctgtca gtgtggcgcc gggagttctc 240
tatgagggcg ggaacaagta ccagactctt gacaactacc agccctaccc ttgcgtgaa 300
gatgaggagt gcggctctga cgagtactgc tccagcccca gccgcggggc agccggcgct 360
ggaggtgtac agatctgtct ggcttgccga aagcgcagga agcgtgcat gacgcacgct 420
atgtgtgcc ccgggaacta ctgcaaaaat ggaatatgca tgccctctga ccacagccat 480
tttctcgag gggaaattga ggaaagcatc attgaaaacc ttggtaatga ccacaacgcc 540
gccgcggggg atggatatcc cagaagaacc aactgactt caaaaatata tcacaccaa 600
ggacaagaag gctccgtctg cctccgatca tcagactgtg ccgcagggt gtgttgtgca 660
agacacttct ggtccaagat ctgtaaactc gtccttaaag aaggtcagg gtgcaccaag 720
cacaacgga aaggctccca cgggctggag atattccagc gctgttactg cggggaaggc 780
ctggcttgca ggatacagaa agatcaccat caagccagca attcttctag gctccacacc 840
tgccagagac actaaaccga cagtctaaat atgatggact ctttttatct aatatatgct 900
acgaaaatcc tttatgattt gtcagctcaa tcccaaggat gtaggaatct tcagtgtgta 960
attaagcatt ccgacaatac tttccaaaag ctctggagt taaggacttt gtttcttgat 1020
ggaactcccc tgtgattgca gtaaattact gtgttgtaaa tctcagtggt ggcacttacc 1080
tgtaaatgca gcaaaacttt taattatatt tctagagggt tggtagattg ccttgtttct 1140
cttgcatgta aatttttttt gtacacgggt gattgtcttg actcataaat attctatatt 1200
ggagtagaaa aaaaaaaaaa aaaaaa 1226

```

<210> 4

<211> 768

<212> DNA

<213> Homo sapiens

<400> 4

```

atacgactca ctataggga tttggccctc gaggccaaga attcggcacg aggggtggga 60
ggtattgcc cagtcaccac caaggatcat cggcctgcat ggtgtgtcgg agaaaaaaga 120
agcgtgcc cagagatggc atgtgctgcc ccagtaaccg ctgcaataat ggcattctgta 180
tccagttac tgaagcacc ttaaccctc acatcccgcc tctggatggt actcggcaca 240
gagatcgaaa ccacggtcac tactcaaacc atgacttggg atggcagaat ctaggaagac 300

```

```

cacacactaa gatgtcacat ataaaagggc atgaaggaga cccctgccta cgatcatcag 360
actgcattga aggggttttg tgtgctcgtc atttctggac caaatctgc aaaccagtgc 420
tccatcaggg ggaagtctgt accaaacaac gcaagaaggg ttctcatggg ctggaaattt 480
tccagcgttg cgactgtgcg aagggcctgt cttgcaaagt atggaaagat gccacctact 540
cctccaaagc cagactccat gtgtgtcaga aaatttgatc accattgagg aacatcatca 600
attgcagact gtgaagtgtg gtatttaatg cattatagca tgggtgaaaa taaggttcag 660
atgcagaaga atggctaata taagaaacgt gataagaata tagatgatca caaaaaaaaa 720
aaaaaaaaag atgcggccgc aagcttattc cctttagtga gggttaat 768

```

```

<210> 5
<211> 828
<212> DNA
<213> Homo sapiens

```

```

<400> 5
tggccccgca cgcaaaaaat tcggcacgag ggtctggcac tcagaggatg ctctgacctt 60
gaaaggggtcc tatctggaga cgagggagta caacgtgctg aatgtgtgcg gttcagggag 120
catttggtta ccctgcattt gggagcagtg ggcactaacc ggttttggag aggtggacac 180
ataaggactg tgatcagcgc ccgggtccaa gagggcgggt acctggacct ctgggtgcct 240
caccctctcc ccgaaccctt cccacagccg taccctgctg cagaggacga ggagtgcggc 300
actgatgagt actgcgctag tcccaccccg cggaggggac cgccggccgt gcaaatctgt 360
ctcgctgca ggaagcgccg aaaacgctgc atgcgtcacg ctatgtgctg ccccggggaat 420
tactgcaaaa atggaatatg tgtgtcttct gatcaaaatc atttccgagg agaaattgag 480
gaaaccatca ctgaaagctt tggtaatgat catagcacct tggatgggta ttccagaaga 540
accaccttgt cttcaaaaat gtatcacacc aaaggacaag aaggttctgt ttgtctccgg 600
tcacagact gtgcctcagg attgtgttgt gctagacact tctgggtcaa gatctgtaaa 660
cctgtcctga aagaaggta agtgtgtacc aagcatagga gaaaaggctc tcatggacta 720
gaaatattcc agcgttggtt ctgtggagaa ggtctgtctt gccggataca gaaagatcac 780
catcaagcca gtaattcttc taggcttcac acttgtcaga gacactaa 828

```

```

<210> 6
<211> 432
<212> DNA
<213> Homo sapiens

```

```

<400> 6
gcggtggcgg ccgctctaga atagtggatc ccccgggctg caggaattcg gcaagagcgg 60
ctgcggggcg agagcggaga tgcagcggct tggggccacc ctgctgtgcc tgctgctggc 120
ggcggcggtc cccacggccc ccgcgcccgc tccgacggcg acctcggtc cagtcaagcc 180
cggcccggtc ctacagctacc cgcaggagga ggccaccctc aatgagatgt tccgcgaggt 240
tgaggaactg atggaggaca cgcagcacia attgcgcagc gcggtggaag agatggaggc 300
agaagaagct gctgctaaa catcatcaga agtgaacctg gcaaaactac ctcccagcta 360
tcacaatgag accaacacag acacgaaggt tggaaataat accatccatg tgcaccgaga 420
aattcacaag tt 432

```

```

<210> 7
<211> 1383
<212> DNA
<213> Gallus sp.

```

```

<400> 7
cggcgagcgg cagcggcggc tgaggagcgc cggggatgcg gcggggagag ggaccggcgc 60
cgcggcggcg atggctgctg ctgttggccg tgctggcggc tctgtgctgc gccgcggccg 120
ggagcggcgg gcggcggcga gcggccagcc tgggcgagat gctgcgggag gtggaggcgc 180
tgatggagga cacgcagcac aagctgcgca acgcccgtgca ggagatggaa gctgaagaag 240

```

```

aaggggcaaa aaaactgtca gaagtaaact ttgaaaactt acctcccacc taccataatg 300
agtccaacac agaaaccaga attggtaata aaactgttca gactcatcaa gaaattgata 360
aggttacaga taacagaact ggatcaacaa ttttttccga gacaattatt acatctataa 420
agggtggaga aaacaaaaga aatcatgagt gtatcattga tgaagactgt gaaacaggaa 480
agtattgcca gttctccacc tttgaatata agtgtcagcc ctgtaaaacc cagcatacac 540
actgctcacg agatgttgaa tgctgcggag accagctttg tgtttggggt gagtgcagga 600
aagccacttc aagaggagaa aatggtacca tttgtgagaa ccaacatgac tgcaaccag 660
gaacgtgctg tgcttttcag aaagaactgc tgtttcctgt gtgactccg ttaccggaag 720
aaggtgaacc ttgccatgat ccttcaaaca gacttctcaa cctgatcacc tgggaactgg 780
aacctgatgg agtactagag cgctgcccat gtgcaagtgg cttgatctgc caacctcaga 840
gcagccacag tactacatct gtgtgtgaac tgctctccaa tgaaaccagg aaaaacgaaa 900
aagaagatcc cttgaacatg gatgagatgc catttatcag ttaataccc agagatattc 960
tttctgatta cgaagaaagc agcgtcattc aggaagtgcg taaagaatta gaaagcctgg 1020
aggaccaagc aggtgtgaag tctgagcatg acccggtca tgacctattt ctgggagatg 1080
aaatatgaag ttcaaacacc agtttagtta gtcctagaaa ttgttgtcta gtgtcttgct 1140
tacatacacc cttaacagat actgctggat agaagtgcaa taaacatctt cattgagcat 1200
ccgttttctg gcaccaaacc tgcattgtca aattcatgtt gaattcactc aatctttgga 1260
ccaaactttc catcaaagac aaatgagaaa ggcatacgtg tttcctttgg attaatoctt 1320
tcctttgtac agcagaaata aacgtatcag tactcgtact cattaaaaaa acacacggag 1380
cat

```

<210> 8

<211> 44

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Consensus wnt Protein

<220>

<221> MOD_RES

<222> (2)..(8)

<223> Any Amino Acid

<220>

<221> MOD_RES

<222> (9)

<223> More Than One Amino Acid

<220>

<221> MOD_RES

<222> (10)..(16)

<223> Any Amino Acid

<220>

<221> MOD_RES

<222> (18)..(19)

<223> Any Amino Acid

<220>

<221> MOD_RES

<222> (21)..(26)

<223> Any Amino Acid

<220>

<221> MOD_RES

<222> (28)..(32)
 <223> Any Amino Acid

<220>
 <221> MOD_RES
 <222> (35)..(38)
 <223> Any Amino Acid

<220>
 <221> MOD_RES
 <222> (40)..(41)
 <223> Any Amino Acid

<220>
 <221> MOD_RES
 <222> (43)
 <223> Any Amino Acid

<400> 8
 Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15

Cys Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa
 20 25 30

Cys Cys Xaa Xaa Xaa Xaa Cys Xaa Xaa Gly Xaa Cys
 35 40

<210> 9
 <211> 65
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Consensus wnt
 Protein

<220>
 <221> MOD_RES
 <222> (2)..(3)
 <223> Any Amino Acid

<220>
 <221> MOD_RES
 <222> (5)..(6)
 <223> Any Amino Acid

<220>
 <221> MOD_RES
 <222> (8)..(11)
 <223> Any Amino Acid

<220>
 <221> MOD_RES
 <222> (14)..(15)
 <223> Any Amino Acid

<220>
<221> MOD_RES
<222> (17)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (21)..(24)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (25)
<223> More Than One Amino Acid

<220>
<221> MOD_RES
<222> (26)..(29)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (31)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (33)..(36)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (38)..(39)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (41)..(47)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (48)
<223> More Than One Amino Acid

<220>
<221> MOD_RES
<222> (49)..(55)
<223> Any Amino Acid

<220>
<221> MOD_RES
<222> (58)
<223> Any Amino Acid

<220>
<221> MOD_RES

<222> (60)..(61)
 <223> Any Amino Acid

<220>
 <221> MOD_RES
 <222> (64)
 <223> Any Amino Acid

<400> 9
 Gly Xaa Xaa Gly Xaa Xaa Cys Xaa Xaa Xaa Xaa Asp Cys Xaa Xaa Gly
 1 5 10 15

Xaa Cys Cys Ala Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Pro
 20 25 30

Xaa Xaa Xaa Xaa Gly Xaa Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 35 40 45

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Arg Cys Xaa Cys Xaa Xaa Gly Leu Xaa
 50 55 60

Cys
 65